

093067-14400

Sub B¹

5 180 mil
4.842

90 mil / 2.286 mm

A method for making a golf ball comprising the steps of:
forming a plurality of protrusion depressions on an inner surface of
a mold, the protrusion depressions having a width of from about 0.09 to about
0.18 inches and a depth of about 0.02 to about 0.06 inches;

molding a center assembly having a plurality of outwardly extending
protrusions from the mold; and

molding a cover about the center assembly having the plurality of
outwardly extending protrusions to thereby obtain a golf ball.

2. A method according to claim 1, wherein the step of molding the
center assembly is performed by utilizing two molds each defining a concave
molding surface having a plurality of protrusion depressions on the molding
surfaces.

3. A method according to claim 1, wherein the step of molding the
center assembly is performed by a compression molding operation at a
temperature of from about 290°F to about 330°F, under a pressure of about 100
to about 500 psi.

4. A method according to claim 1, wherein the plurality of protrusion
depressions are selected from the group consisting of convex, angled, and
stepped.

5. A method according to claim 1, wherein the step of forming the
plurality of protrusion depressions is performed by a technique selected from the
group consisting of drilling, end milling, grinding with a cutting tool, and using an
electrical discharge machine.

6. A method according to claim 1, wherein the step of molding the
cover about the center assembly includes a first operation of molding an inner
cover layer about the center assembly and a second operation of molding an
outer cover layer about the inner cover layer.

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7. A method for making a golf ball comprising the steps of:
molding a spherical center;
forming a plurality of protrusion depressions on a mold adapted to
receive the spherical center, the protrusion depressions each having a width of
about 0.09 to about 0.18 inches and a depth of about 0.02 inches to about 0.06
inches;
positioning the spherical center within the mold having the plurality
of protrusion depressions;
molding a mantle layer about the spherical center in the mold to
form a center assembly having a plurality of outwardly extending protrusions; and
molding a cover layer about the mantle layer.
8. A method according to claim 7, wherein the step of molding the
mantle layer is performed by injection molding at a temperature of from about
200°F to about 400°F for about 2 to 10 minutes.
9. A method according to claim 7, wherein the plurality of protrusion
depressions have a configuration selected from the group consisting of convex,
angled, and stepped.
10. A method according to claim 7, wherein the step of forming the
plurality of protrusion depressions is performed by a technique selected from the
group consisting of drilling, end milling, grinding with a cutting tool, and utilizing
an electrical discharge machine.
11. A method according to claim 7, wherein the step of molding the
cover about the mantle layer includes an operation of molding a first cover layer
about the mantle layer and an operation of molding a second cover layer about
the first cover layer.
12. A method for making a multi-layered golf ball comprising the steps
of:

forming a plurality of protrusion depressions on an inner surface of a mold, each of the protrusion depressions having a depth of from about 0.02 to about 0.06 inches;

producing a center assembly having a plurality of outwardly extending protrusions from the mold;

forming a mantle layer about the center assembly having the outwardly extending protrusions; and

producing a cover about the mantle layer to thereby obtain a golf ball.

13. A method according to claim 12, wherein the center assembly is produced by utilizing two molds each defining a concave molding surface having a plurality of protrusion depressions on the molding surfaces.

14. A method according to claim 12, wherein the center assembly is produced by a compression molding operation utilizing a temperature of from about 290°F to about 330°F.

15. A method according to claim 12, wherein the plurality of protrusion depressions are selected from the group consisting of convex, angled, and stepped.

16. A method according to claim 12, wherein the plurality of protrusion depressions are formed by a technique selected from the group consisting of drilling, end milling, grinding with a cutting tool, and using an electrical discharge machine.

17. A method according to claim 12, wherein the cover is produced by forming a first inner cover layer about the mantle layer and then forming a second outer cover layer about the first inner cover layer.

18. A method for making a golf ball comprising the steps of:

- molding a spherical center;
- forming a plurality of protrusion depressions on a mold adapted to receive the spherical center, each of the protrusion depressions having a width
- 5 of from about 0.09 to about 0.18 inches;
- positioning the spherical center within the mold having the plurality of protrusion depressions;
- molding a mantle layer about the spherical center in the mold having the plurality of protrusion depressions to form a center assembly having
- 10 a plurality of outwardly extending protrusions;
- molding an intermediate layer about the center assembly having the outwardly extending protrusions; and
- molding a cover about the intermediate layer to thereby obtain a golf ball.
19. A method according to claim 18, wherein the step of molding the mantle layer is performed by utilizing two molds each defining a concave molding surface having a plurality of protrusion depressions on the molding surfaces.
20. A method according to claim 18, wherein the center assembly is compression molded utilizing a temperature of from about 290°F to about 330°F.
21. A method according to claim 18, wherein the plurality of protrusion depressions are selected from the group consisting of convex, angled, and stepped.
22. A method according to claim 18, wherein the plurality of protrusion depressions are formed by a technique selected from the group consisting of drilling, end milling, grinding with a cutting tool, and using an electrical discharge machine.
23. A method according to claim 18, wherein the step of molding the cover is performed by molding a first cover layer about the intermediate layer and

further molding a second cover layer about the first cover layer.

24. A method for forming a golf ball comprising the steps of:
- providing a first die defining a first hemispherical molding surface;
 - providing a second die defining a second hemispherical molding surface, the second die adapted to engage with the first die such that the first hemispherical molding surface and second hemispherical molding surface align with each other to form a spherical molding surface adapted to form a golf ball component;
 - machining a plurality of protrusion depressions in each of the first die and second die to thereby form first and second machined dies, wherein each of the protrusion depressions have a width of from about 0.09 inches to about 0.18 inches and a depth of from about 0.02 inches to about 0.06 inches;
 - positioning the first and second machined dies together to form a generally spherical molding cavity defining the plurality of protrusion depressions machined therein;
 - molding a golf ball center assembly in the generally spherical molding cavity; and
 - forming a cover layer about the golf ball center assembly to thereby produce a golf ball.

25. The method of claim 24 wherein the molding operation is performed by a compression molding technique at a temperature of from about 290°F to about 330°F under a pressure of about 100 psi to about 500 psi.

26. The method of claim 24 wherein the molding operation is performed by an injection molding technique at a temperature of from about 200°F to about 400°F for about 2 to about 10 minutes.